

Chronic Conditions in Medicare

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There has been a growing interest in understanding the utilization patterns among Medicare beneficiaries in recent years. Current research emphasizes the share of Medicare expenditures by beneficiaries with chronic conditions. For example, patients with multiple chronic conditions can cost up to seven times as much as patients with only one chronic condition [1]. Since Medicare covers those aged 65 years and older, who typically have at least one chronic condition, and those aged 65 and younger who require continuous care and expensive treatments due to a disability or End-stage Renal Disease, , reducing overall health care expenditures impels management of Medicare use among beneficiaries with chronic conditions.

In this brief, we provide a detailed analysis of the Medicare expenditures using the 2008 Chronic Conditions Public Use File (PUF) that was recently made available by the Centers for Medicare & Medicaid Services (CMS) [2]. The PUF contains information from 100% of Medicare beneficiaries in 2008.¹ We focus only on beneficiaries with **full year enrollment in Medicare Part A and B**² (not necessarily both) even though the PUF contains information for other segments as shown in Table 1.

Table 1: Segments in the 2008 Chronic Conditions PUF

Part A < 12	Part B < 12	Part C < 12	Part D < 12
Part A = 12*	Part B = 12*	Part C = 12	Part D = 12

"< 12" implies less than 12 months of enrollment and "=12" implies 12 months of enrollment.

* Segment included in the brief.

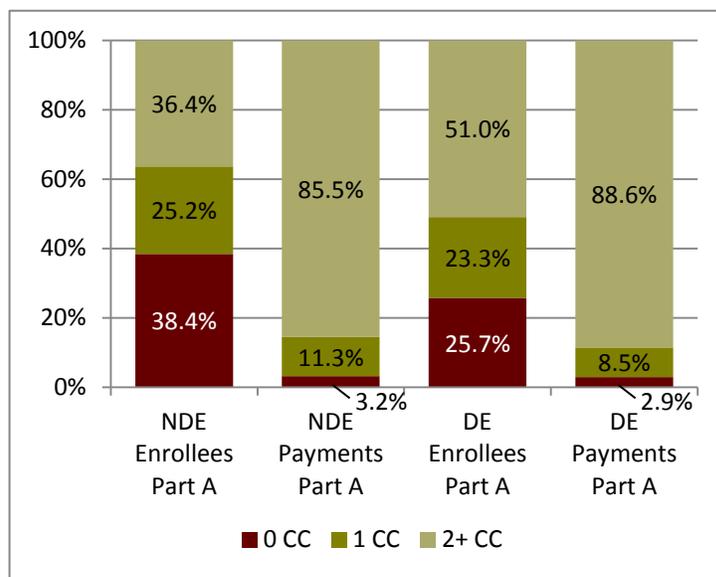
¹ See Appendix for more information.

² Enrollees in Part A and enrollees in Part B are calculated independently even though many beneficiaries enroll in both Part A and B and hence contribute to some statistics in this brief for both programs. For example, a beneficiary's dual-eligibility or chronic conditions apply to calculations for both Part A and B if the beneficiary is enrolled in both Part A and B.

Findings

First, we calculate the prevalence of chronic conditions in Part A enrollees and its relation to Medicare payments. We find that 36 percent of Part A enrollees have no chronic conditions and make up only 3.1 percent of total Part A payments, whereas 39.1 percent of them have two or more chronic conditions and make up 86.5 percent of total Part A payments. Figure 1 shows the same relationship for non-dual-eligible (NDE) and dual-eligible (DE) Part A enrollees.³ Among the NDE (DE) Part A enrollees, 61.6 (74.3) percent have at least one chronic condition but their share of total Part A payments is 96.8 (97.1) percent.⁴ The remaining 3.2 (2.9) percent of Part A payments is generated by 38.4 (25.7) percent of the NDE (DE) enrollees who do not have a chronic condition.

Figure 1: Prevalence of Chronic Conditions in Part A Enrollees and Medicare Payments



Source: 2008 Chronic Conditions PUF.

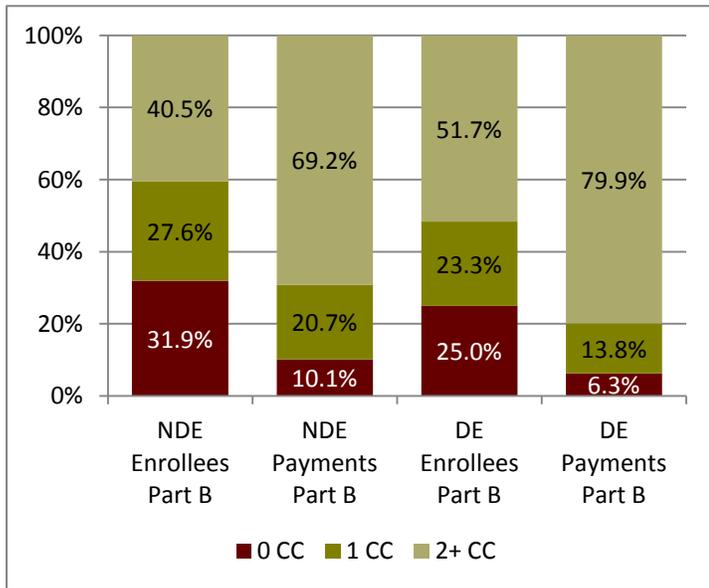
NDE: Non-Dual-Eligible; DE: Dual-Eligible; CC: Chronic Condition

³ Dual-eligible enrollees are beneficiaries who are simultaneously covered by Medicare and Medicaid.

Similarly, we find that 30.5 percent of Part B enrollees have no chronic condition and make up only 9 percent of total Part B payments, whereas 42.8 percent of them have two or more chronic conditions and make up 72.3 percent of total Part B payments, respectively.⁵ Figure 2 shows the same relationship for NDE and DE Part B enrollees. Among the NDE (DE) Part B enrollees, 68.1 (75.0) percent have at least one chronic condition but their share of total Part B payments is 89.9 (93.7) percent. The remaining 10.1 (6.3) percent of Part B payments is generated by 31.9 (25.0) percent of the NDE (DE) enrollees who do not have a chronic condition.

enrollees. First, dual-eligibles have more chronic conditions, on average, than non-dual eligibles for every gender and age category and for both Part A and B enrollees. Second, non-dual-eligible Part B enrollees have more chronic conditions than Part A enrollees for every gender and age category. However, the differences are negligible for dual-eligibles. Third, females have more chronic conditions, on average, than males as summarized in Table 2. Male enrollees in Part A have an average of 1.24 (NDE) and 1.57 (DE) chronic conditions, while female enrollees have 1.38 (NDE) and 2.19 (DE). Similarly, male enrollees in Part B have an average of 1.41 (NDE) and 1.60 (DE) chronic conditions, while female enrollees have 1.51 (NDE) and 2.20 (DE).

Figure 2: Prevalence of Chronic Conditions in Part B Enrollees and Medicare Payments

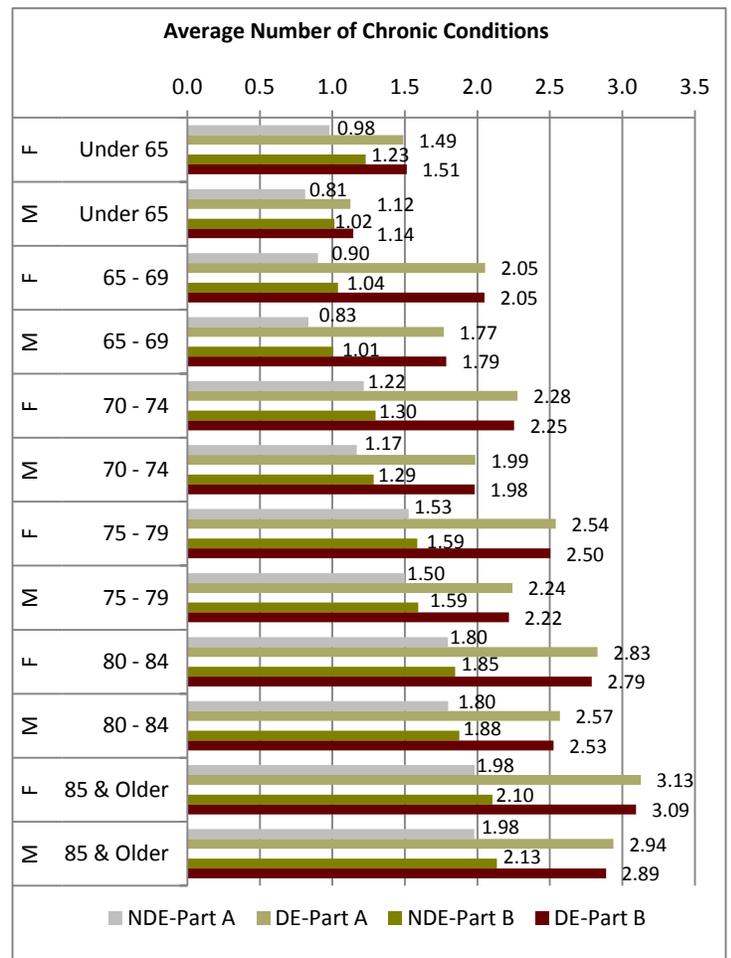


Source: 2008 Chronic Conditions PUF.
NDE: Non-Dual-Eligible; DE: Dual-Eligible; CC: Chronic Condition

We also find that Part B enrollees are less healthy compared to Part A enrollees. The average number of chronic conditions are 1.32 (NDE) and 1.95 (DE) for Part A enrollees and 1.46 (NDE) and 1.97 (DE) for Part B enrollees. The average numbers of chronic conditions for Part A and B regardless of dual-eligibility are 1.44 and 1.57, respectively.

Figure 3 breaks down the average number of chronic conditions by gender and age categories for Part A and B

Figure 3: Average Number of Chronic Conditions



Source: 2008 Chronic Conditions PUF.
NDE: Non-Dual-Eligible; DE: Dual-Eligible

⁵ Table not provided.

Table 2: Gender Differences in Average Number of Chronic Conditions

		Part A	Part B
NDE	Male	1.24	1.41
	Female	1.38	1.51
DE	Male	1.57	1.60
	Female	2.19	2.20

Source: 2008 Chronic Conditions PUF.
NDE: Not Dual-Eligible; DE: Dual-Eligible

Next, we provide the average Medicare payment per enrollee by the number of chronic conditions and the dual-eligibility status in Table 3.⁶ Average payments for enrollees without any chronic conditions are about \$248 (NDE) and \$716 (DE) for Part A and \$1,156 (NDE) and \$1,393 (DE) for Part B. However, they increase significantly with the number of chronic conditions. For example, existence of one chronic condition increases the average payment by a factor of 5.3 for NDE Part A enrollees and more than a factor of 2.4 for NDE Part B enrollees.

Table 3: Average Payment per Enrollee for Medicare Part A & B by Number of Chronic Conditions

	# of CCs	# of Enrollees Part A	# of Enrollees Part B	Average Payment Part A	Average Payment Part B
NDE	0	10,138,926	7,497,739	\$248	\$1,156
	1	6,663,517	6,498,765	\$1,314	\$2,722
	2	4,583,587	4,514,823	\$2,998	\$4,258
	3	2,632,736	2,606,318	\$5,968	\$6,128
	4	1,399,364	1,389,361	\$10,784	\$8,472
	5	649,251	646,544	\$17,537	\$10,974
	6	251,404	250,820	\$26,153	\$13,597
	7	80,674	80,613	\$36,243	\$16,283
	8	19,532	19,543	\$46,766	\$18,729
	9	2,991	2,996	\$56,014	\$20,638
	10	225	225	\$68,333	\$22,367
DE	0	1,552,910	1,539,298	\$716	\$1,393
	1	1,405,876	1,439,872	\$2,286	\$3,289
	2	1,092,821	1,131,680	\$4,414	\$5,185
	3	806,921	838,053	\$7,683	\$7,285
	4	558,204	578,539	\$12,572	\$10,102
	5	339,370	350,926	\$19,110	\$12,954
	6	175,924	181,503	\$27,390	\$15,922
	7	75,353	77,374	\$36,690	\$18,869
	8	23,542	24,085	\$46,137	\$21,262
	9	4,720	4,841	\$54,212	\$23,586
	10	381	386	\$62,888	\$25,277

Source: 2008 Chronic Conditions PUF.

NDE: Non-Dual-Eligible; DE: Dual-Eligible; CC: Chronic Condition

Conclusions

The 2008 Chronic Conditions PUF allows one to compare differences in utilization of Medicare Part A and B by various variables, such as gender, age categories, dual-eligibility status, and eleven chronic conditions. This brief summarizes a few of the findings for Medicare beneficiaries enrolled in Medicare Part A and B for the full year in 2008.

Dual eligibles are known to be a vulnerable and costly group with relatively lower health status than non-dual-eligibles [3] [4]. The detailed breakdown by gender and age categories in the 2008 Chronic Conditions PUF provides further evidence that dual-eligible beneficiaries cost significantly more than non-dual-eligible beneficiaries and the difference is starker for the average Medicare payment for Part A (Figure 1 and Figure 2).

Next, we find that Part B enrollees are less healthy compared to Part A enrollees with the average number of chronic conditions at 1.57 and 1.44, respectively. We find that the difference is predominantly because of non-dual-eligibles. We also find that dual-eligibles have more chronic conditions on average than non-dual-eligibles for every gender and age category consistent with observing higher costs for dual-eligibles (Figure 3). The analysis of gender differences indicates that females have consistently more chronic conditions, on average, than males. This finding is true for both Part A and B as well as within dual-eligibles and non-dual-eligibles (Table 2).

Finally, in Table 3 we show that average Medicare payments increase drastically with the number of chronic conditions.

⁶ Note that similar tables can also be calculated by each gender and age category from the 2008 Chronic Conditions PUF.

References

[1] The High Concentration of U.S. Health Care Expenditures, Research in Action, AHRQ, June 2006, Issue #19.

[2] Available at www.cms.gov/BSAPUFS

[3] Report to the Congress: New Approaches in Medicare, "Dual Eligible Beneficiaries: An Overview," MedPAC, June 2004.

[4] Report to the Congress: New Approaches in Medicare, "Coordinating Care for Dual-eligible Beneficiaries," MedPAC, June 2011.

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Appendix

About the 2008 Chronic Conditions PUF

The 2008 Chronic Conditions PUF is available at www.cms.gov/BSAPUFS. This is an aggregated file in which each record is a profile (or cell) defined by the characteristics of Medicare beneficiaries.

Data Source

The 2008 Chronic Conditions PUF summarizes administrative (claims) data for the 100% of claims for Fee-for-Service (FFS) Medicare Beneficiaries. This is a *profile* level file where each record is defined by the characteristics of Medicare beneficiaries: age, gender, dual-eligibility status, and eleven chronic condition indicators (e.g., cancer, diabetes). For each *profile* many expenditure and utilization variables are provided in the form of averages. The expenditure and utilization variables are provided by the three Medicare programs: FFS Part A, Part B, and Part D. For Part D, the available information is the total drug cost rather than Medicare payment. For beneficiaries enrolled in Part C plans, or Medicare Advantage (MA), the only available information is the number of beneficiaries enrolled as their claims are not observed. Finally, the expenditure and utilization variables are provided separately for beneficiaries enrolled in the program for the full year and less than the full year in 2008.

Using the 2008 Chronic Conditions PUF, researchers can investigate the average and total expenditures and

utilization measures in Medicare programs for various types of care (e.g., inpatient, outpatient) by profile variables. Users can also compare the utilization of beneficiaries enrolled for the full year and those enrolled for partial year in 2008.

Refer to the general documentation for the 2008 Chronic Conditions PUF for details on sampling, variables, disclosure limitation techniques, and preparation of the file [2].

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